REMARKS

Claims 1 through 24 are pending in this Application. Claims 1, 2, 6, 8 through 11, 13, 18, 20, and 23 have been amended. Care has been exercised to avoid the introduction of new matter. Adequate descriptive support for the present Amendment should be apparent throughout the originally filed disclosure. Applicant submits that the present Amendment does not generate any new matter issue.

Claims 1 through 24 were rejected under 35 U.S.C. § 102 for lack of novelty as evidenced by Hind et al.

In the statement of the rejection the Examiner referred to Fig. 5 of Hind et al. and to various paragraphs of the published application text, asserting the disclosure of a radio apparatus, transmission method, and computer executable program corresponding to those claimed. This rejection is traversed.

The factual determination of lack of novelty under 35 U.S.C. § 102 requires the identical disclosure in a single reference of each element of a claimed invention, such that the identically claimed invention is placed into the recognized possession of one having ordinary skill in the art. *Dayco Prods., Inc. v. Total Containment, Inc., 329 F.3d 1358, 66 USPQ2d 1801 (Fed. Cir. 2003); Crown Operations International Ltd. v. Solutia Inc., 289 F.3d 1367, 62 USPQ2d 1917 (Fed. Cir. 2002).* There are significant differences between the claimed inventions and the disclosure of Hind et al. that scotch the factual determination that Hind et al. disclose a radio apparatus, transmission method and computer executable program identically corresponding to those claimed.

Independent claims 1 and 8.

The radio apparatus defined in independent claim 1 and method defined in independent claim 8 involve a radio apparatus communicating with a terminal apparatus. A feature of the claimed inventions is that a plurality of virtual terminal apparatuses are assumed apart from the terminal apparatus which is a targeted communication party. The directional pattern of an antenna is formed such that signal strength in the direction of one of the plurality of virtual terminal apparatuses is relatively small. In addition, the direction in which the signal strength is relatively small is changed at predetermined intervals, by changing one of the plurality of virtual terminal apparatuses at predetermined intervals. As a result, each of the plurality of virtual terminal apparatuses cannot continuously receive a signal.

In Fig. 1, Hind et al. disclose a base station and two remote wireless sensors constituting a boundary. The disclosed base station communicates with terminals located within the boundary. In Fig. 5, Hind et al. illustrate a method of measuring the position that defines the boundary. **However, it is apparent that Hind et al. neither disclose nor suggest that the antenna directional pattern is controlled to change the direction in which signal strength is relatively small, as required in claims 1 and 8.**

Independent claims 2, 10, 11 and 18.

The radio apparatus defined in independent claim 2, methods defined in claims 10 and 11, and computer executable program defined in claim 18 are clearly distinguishable over Hind et al. Specifically, a feature of these independent claims is that a plurality of virtual terminal apparatuses are assumed such that the directions in which the apparatuses are found differ from apparatus to apparatus. For signal transmission, a transmission weight factor is generated based

on a virtual response vector corresponding to one of the plurality of virtual terminal apparatuses. Moreover, the radio apparatus switches one virtual response vector to another so as to change the direction in which the virtual terminal apparatus is located.

As previously pointed out, Hind et al. illustrate a method of measuring the position that defines the boundary constituted by a base station and two remote wireless sensors. **However, Hind et al. neither disclose nor suggest switching one virtual response vector to another so as to change the direction in which the virtual terminal apparatus is located, as required by claims 2, 10, 11 and 18, much less the claims dependent thereon.**

Independent claim 9.

The method defined in independent claim 9 clearly distinguishes over Hind et al. In accordance with the method defined in independent claim 9, a plurality of terminal apparatuses are assumed apart from the terminal apparatus which is a targeted communication party. The directional pattern of an antenna is formed such that the signal strength in the direction of one of the plurality of virtual terminal apparatuses is relatively small. In addition, the radio apparatus changes the virtual terminal apparatus located in the direction in which signal strength is relatively small at predetermined intervals, by changing said one of the plurality of virtual terminal apparatuses at predetermined intervals. As a result, relatively small signal intensity occurs in different directions excessively, while the value of signal strength received by the terminal apparatus which is a targeted communication party is maintained. **Hind et al. neither disclose nor suggest changing the direction in which signal strength is relatively small, while maintaining the value of the signal strength received by the terminal apparatus which is a targeted communication party.**

The above argued differences between the claimed inventions and Hind et al. undermine the factual determination that Hind et al. disclose a radio apparatus, method and computer executable program identically corresponding to those claimed. *Minnesota Mining & Manufacturing Co. v. Johnson & Johnson Orthopaedics Inc., 976 F.2d 1559, 24 USPQ2d 1321 (Fed. Cir. 1992); Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).* Applicant, therefore, submits that the imposed rejection of claims 1 through 24 under 35 U.S.C. § 102 for lack of novelty as evidenced by Hind et al. is not factually viable and, hence, solicits withdrawal thereof.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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